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Data Sheet
Fujitsu PRIMERGY BX620 S6 Dual-Socket server blade

Next generation platform maximizing energy efficiency and performance

The PRIMERGY BX Blade Servers are the ideal choice for data center solutions of today and tomorrow. Our blade servers provide maximum performance and maximum redundancy, but with only minimum space requirements, low power consumption and a reduction in the time and effort required for cabling. The PRIMERGY BX system family is designed to share components between chassis in order to react quickly and easily to changing business requirements. Storage and server blades can be added without any extra effort, as would be needed when cabling or adding management software. You can use the same applications, rely on the same server and storage components and establish connections to the same networks. The PRIMERGY BX Blade Servers are flexible and have complete control via a central administration instance that is redundant in design; they minimize administrative time and effort, freeing you of time-consuming administration tasks. Our build-to-order process ensures that only completely installed and previously tested solutions are supplied, which have been precisely adapted to individual requirements and which will grow with future business requirements.

PRIMERGY BX620 S6
The Fujitsu PRIMERGY BX620 S6 Server Blade can be equipped with up to two Dual-, Quad- or Six-Core CPUs of the latest Intel® Xeon® processor 5500 or 5600 series. The new Intel® Xeon® processor series, the first 32 nm processors, automatically regulate the power consumption and adapt the server performance according to the application requirements, thus maximizing energy efficiency and performance. 12 DIMM slots and a memory capacity of up to 192GB make

the server blade ideal for virtualization scenarios and compute-intensive applications. Six onboard Ethernet channels with iSCSI support are available as communication interfaces. The server blade also has two optional slots for a mezzanine card and an SAS storage module.

Green IT is an important component of the new Dual Socket Server Blades. The innovative cooling concept Cool-safe™ reduces energy consumption and intelligent ServerView power management functions make saving energy easy, reducing the power costs of each server. All things considered, the new PRIMERGY BX620 S6 Server Blade helps do more with less power, which in turn contributes to a significant reduction in costs during its entire product lifecycle. Efficient system administration is supported by the integrated Remote Management Controller (iRMC S2). The iRMC S2 integrates remote management functions for the server and is the ideal solution for autonomous remote monitoring, diagnostics and maintenance.

Features and Benefits

Main Features	Benefits
Top performance thanks to processor technology ■ Two Dual-, Quad or Six-Core CPUs with the latest Intel® Xeon® processor 5600 series with Intel® Turbo Boost and Intelligent Power technology.	■ Intelligent Power technology reduces energy costs in comparison to single-core servers by automatically shifting processors and memory into the lowest available power state. Turbo Boost technology automatically increases processor frequency and uses hyperthreading in order to meet the requirements of complex applications.
High memory capacity ■ Up to 192GB RAM with DDR3 technology and 12 DIMM slots	■ Scalable memory for computing-intensive applications and virtualized environments.
Comprehensive management ■ Irrespective of the system status, ServerView Operations Manager enables comprehensive management of all servers within the network from a central console.	■ The PRIMERGY ServerView Suite simplifies the installation and monitoring of the servers to be managed and their components. For example, the analysis function is used to project any exceeding of threshold values or resource bottlenecks. Event Management can be used to plan the actions that are to be taken when a particular situation is detected in the analysis phase.
Connectivity ■ Six onboard Ethernet channels are available as communication interfaces. Additional two optional slots for a mezzanine card or an SAS storage module.	■ High flexibility when selecting I/O connections.
Remote management made easy ■ Management via the integrated Remote Management Controller (iRMC S2) enables access to each server and extensive control, even at remote locations. The integrated Pre-failure Detection and Analysis function provides reliable operations in all circumstances.	■ Easy and reliable management and control. Routine and maintenance tasks in the event of server problems can be carried out efficiently on a remote basis.
Energy-efficient performance ■ The Intel® Xeon® processor 5600 series automatically regulates power consumption and adapts the server performance according to the applications.	■ Up to 40 percent more performance in comparison to the previous version, and 30 percent less power consumption.
Safety ■ An optional Trusted Platform Module (TPM) to securely save keys and authentications for the hardware platform.	■ This component enables third-party manufacturer programs to save key information (e. g. drive encryption via Windows BitLocker Drive Encryption).
Customer Self Service (CSS) ■ The CSS concept is used to identify and remove the affected component.	■ Important simplification of repair and maintenance work and the simultaneous opportunity to save costs. ■ Local Service Panel (LSP) or Local Service Display (LSD) indicates the hardware component that must be replaced.

Technical details

Mainboard	
Mainboard type	D 3051
Chipset	Intel® 5500
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5500 series / Intel® Xeon® processor E5600 series / Intel® Xeon® processor L5600 series / Intel® Xeon® processor X5600 series
Processor	Intel® Xeon® processor E5503 (2C/2T, 2.00 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
	Intel® Xeon® processor E5603 (4C/4T, 1.60 GHz, SLC: -, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5606 (4C/4T, 2.13 GHz, SLC: -, TLC: 8 MB, Turbo: No, 4.8 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5607 (4C/4T, 2.26 GHz, SLC: -, TLC: 8 MB, Turbo: No, 4.8 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5620 (4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5640 (4C/8T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5645 (6C/12T, 2.40 GHz, SLC: -, TLC: 12 MB, Turbo: 1/1/1/1/2/2, 5.86 GT/s, Mem bus: 1333 MHz, 80 W)
	Intel® Xeon® processor E5649 (6C/12T, 2.53 GHz, SLC: -, TLC: 12 MB, Turbo: 1/1/1/1/2/2, 5.86 GT/s, Mem bus: 1333 MHz, 80 W)
	Intel® Xeon® processor L5630 (4C/8T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 40 W)
	Intel® Xeon® processor L5640 (6C/12T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/3/3/4/4, 6.4 GT/s, Mem bus: 1333 MHz, 60 W)
	Intel® Xeon® processor X5650 (6C/12T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5660 (6C/12T, 2.80 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5667 (4C/8T, 3.06 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5672 (4C/8T, 3.20 GHz, SLC: -, TLC: 12 MB, Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5675 (6C/12T, 3.06 GHz, SLC: -, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
Memory slots	12 (3 channels per CPU with 2 slots each)
Memory slot type	DIMM (DDR3)
Memory capacity (min. - max.)	2 GB - 192 GB
Memory protection	Memory Mirroring support Hot-spare memory support SDDC (Chipkill™)
Memory Modules Independent Mode	2 GB (1 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3 LV, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (1 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM

Memory Modules Mirrored Mode	4 GB (2 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (2 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (2 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (2 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (2 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	32 GB (2 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM
Memory Modules Spare or Performance Mode	6 GB (3 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	12 GB (3 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	12 GB (3 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	24 GB (3 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	24 GB (3 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	48 GB (3 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM
Memory modules notes	standard and LV DDR3 DIMM modules

Interfaces

USB ports	2 x USB at the front via special cable
Graphics (15-pin)	1 x VGA at the front via special cable
LAN / Ethernet (RJ-45)	6 x Gbit Ethernet via Midplane at GbE Switch Blade or GbE Pass-Thru Blade or GbE IBP
Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s)
	Service LAN traffic can be switched to shared onboard Gbit LAN port

I/O controller on board

LAN Controller	Intel® 82575EB , 2 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), 3 x 2-channel LAN controller on-board
Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller)
Onboard controller notes	pluggable Storage-Modules for internal HDDs
Trusted Platform Module (TPM)	Infineon / 1.2 (option)

Slots

PCI-Express x8	1 x BX6x0 Mezzanine direct connection on Mainboard
Slot Notes	1x for SAS Storage Module (See under Components -> SAS controller)

General system information

Operating panel

Operating buttons	On/off switch
Status LEDs	Power (amber / green)
	System status (green / orange)
	Console Port (green / amber)
	LAN connection (green)
	Hard disks access (green)
	Mezzanine card status (green)

BIOS

BIOS features	ROM based setup utility
	Recovery BIOS
	BIOS settings save and restore
	Local BIOS update from USB device
	Online update tools for main Windows and Linux versions
	Local and remote update via ServerView Update Manager
	SMBIOS V2.4
	Remote PXE boot support
	Remote iSCSI boot support

Operating Systems and Virtualization Software

Certified or supported operating systems and virtualization software	Microsoft® Windows® Server 2008 Datacenter
	Microsoft® Windows® Server 2008 Enterprise
	Microsoft® Windows® Server 2008 Standard
	VMware vSphere™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	VMware vSphere™ 4.0
	VMware vSphere™ 4.0 Embedded
	VMware vSphere™ 4.0 Installable
	Novell® SUSE Linux Enterprise Server 11
	Novell® SUSE Linux Enterprise Server 10
	Novell® SUSE Linux Enterprise Server 10 with XEN
	Red Hat® Enterprise Linux 5
	Red Hat® Enterprise Linux 5 with XEN
	Citrix® XenServer®
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	ServerView Suite:
	SV Installation Manager
	SV Operation Manager
	SV RAID Manager
	SV Update Management
	SV Power Management
	SV Agents
	ASR&R Automatic Server Recovery and Restart
	PDA Prefailure Detection and Anaylsis
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.

Dimensions / Weight

Dimensions (W x D x H)	286 x 470 x 43 mm
Dimension notes	(Depth: 520 mm incl. handles and plugs)
Weight	up to 7,5 kg
Weight notes	Actual weight may vary depending on configuration

Environmental compliance

Temperature note	In accordance with the corresponding PRIMERGY BX600 system unit
Operating environment	FTS 04230 Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe

Electrical values

Active power (max. configuration)	331 W
Heat emission	1191.6 kJ/h (1129.4 BTU/h)

Compliance

Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us
	ULc/us
	ICES-003 Class A
	FCC Class A
Global	CB
	RoHS (Restriction of hazardous substances)
	WEEE (Waste electrical and electronical equipment)

Compliance	
Japan	VCCI
Australia/New Zealand	C-Tick
Taiwan	BSMI
Compliance notes	In combination with corresponding PRIMERGY BX system unit
Compliance link	http://sp.ts.fujitsu.com/sites/certificates/

Components

Storage disks	SSD SATA, 3 Gb/s, 64 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SATA, 3 Gb/s, 32 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 3 Gb/s, 1000 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 320 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SATA, 3 Gb/s, 250 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SAS, 3 Gb/s, 600 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 450 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
SCSI / SAS Controller	SAS Ctrl. 6 Gb 8 ports ext. PCIe Gen2 x8
	SAS Ctrl. 3 Gb 4 ports int. / 4 ports ext.
SAS Storage Modules	Storage module, HDD SAS 3 Gb, RAID level: 0, 1, 10, 256 MB Cache, inclusive BBU
RAID Controller	RAID 5/6 Ctrl., HDD SAS 6 Gb, LSI , 8 ports ext.
	RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
Fibre Channel controller	Fibre Channel Mezzanine Card 2 x 4 Gb BX600-FC42E
	Ethernet Mezzanine Card 2 x 1 Gb
	Fibre Channel Host Bus Adapter 2 x 8 Gb Qlogic QLE2562 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Emulex LPe12002 MMF LC-style
LAN Controller	Converged Network Adapter 2 x 10 Gb Emulex OCe10102
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu

Warranty	
Standard Warranty	3 years
Service level	On-site Service (depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY BX620 S6, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products

www.fujitsu.com/global/services/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY BX620 S6, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/Primergy

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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